

AMENDMENTS TO THE CLAIMSLISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended). A method of processing an audio signal comprising the steps of:

receiving a plurality of M sound source signals, each of said M sound source signals having source information including at least one of position information, movement information, and localization information;

synthesizing ~~a plurality of (M)~~ said M sound source signals to provide N sound source signals, said number N being smaller than said number M of said sound source signals, based on ~~at least one of position information, movement information and localization~~ said source information of each of said M sound source signals;

synthesizing ^{N/A} said M source information ~~at least one information of position information, movement information and localization~~ to produce N source information corresponding to said N synthesized sound source signals, based on said source information of each of said M sound source signals; and

localizing said N synthesized sound source signals in sound

image based on said ~~synthesized at least one~~ N source information.

Claim 2 (Previously Presented). The method of processing an audio signal according to claim 1, wherein said step of localizing is a virtual sound image localization for obtaining two-channel reproduced signals supplied to a pair of acoustic transducers to localize a sound image at an arbitrary position around a listener.

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Claim 3 (Previously Presented). The method of processing an audio signal according to claim 1, wherein said at least one position information, movement information and localization information of said M sound source signals and/or said synthesized at least one information of position information, movement information and localization information corresponding to said N synthesized sound source signals is changed by a change instruction.

Claim 4 (Previously Presented). The method of processing an audio signal according to claim 3, wherein said change instruction is supplied by a user's operation.

Claim 5 (Previously Presented). The method of processing an audio signal according to claim 3, wherein said change instruction

is obtained by detecting a movement of a listener's head.

Claim 6 (Previously Presented). The method of processing an audio signal according to claim 1, further comprising the step of supplying random fluctuations to at least one sound signal of said M sound source signals and/or said synthesized information corresponding to at least one of said N synthesized sound source signals.

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Claim 7 (Previously Presented). The method of processing an audio signal according to claim 1, wherein said number (N) of said synthesized sound source signals is two or greater, at least one of said synthesized sound source signals is based on localization information.

Claim 8 (Previously Presented). The method of processing an audio signal according to claim 1, further comprising the steps of changing a video signal in response to changes of reproducing localization positions of said M sound source signals or said N synthesized sound source signals and outputting said video signals.

Claim 9 (Currently Amended). The method of processing an audio signal comprising the steps of:

receiving a plurality of M sound source signals, each of said M sound source signals having source information including at least one of position information, movement information, and localization information;

synthesizing N sound source signals from a plurality of (M) said M sound source signals, where N is smaller than M, based on said source information of each of said M sound source signals;

synthesizing said M source information to produce N source information corresponding to said N synthesized sound source signals based on said source information of each of said M sound source signals;

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localizing said synthesized N sound source signals in virtual sound image based on a plurality of previously determined ~~localization positions~~ said N source information;

storing a plurality of audio signals, localized in virtual sound image in memory means; and

reading and reproducing said audio signals from said memory means in response to said ~~localization positions~~ N source information of said synthesized N sound source signals.

Claim 10 (Currently Amended). The method of processing an audio signal according to claim 9, wherein one of ~~the localization positions~~ said N source information of said synthesized N sound

source signals is changed by a change instruction.

Claim 11 (Previously Presented). The method of processing an audio signal according to claim 10, wherein said change instruction is supplied by a user's operation.

Claim 12 (Previously Presented). The method of processing an audio signal according to claim 10, wherein said change instruction is obtained by detecting a movement of a listener's head.

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Claim 13 (Currently Amended). The method of processing an audio signal according to claim 9, further comprising the step of supplying random fluctuations to said ~~localization positions~~ N source information of said audio signals read out from said memory means.

Claim 14 (Previously Presented). The method of processing an audio signal according to claim 9, wherein said number (N) of said synthesized sound source signals is two or larger, at least one of said synthesized sound source signals is based on localization information.

Claim 15 (Currently Amended). An apparatus for processing an

audio signal comprising:

means for receiving a plurality of M sound source signals, each of said sound source signals having source information including at least one of position information, movement information, and localization information;

means for synthesizing ~~a plurality of (M)~~ said M sound source signals to provide N sound source signals, said number N being smaller than said number M of said sound source signals, based on ~~at least one of position information, movement information and localization~~ said source information of each of said M sound source signals;

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means for ~~generating synthesized information by synthesizing said M source information corresponding to said synthesized N sound source signals from said information of said M sound source signals to produce N source information corresponding to said N synthesized sound source signals based on said source information of each of said M sound source signals;~~ and

signal processing means for localizing in sound image said synthesized N sound source signals based on said ~~synthesized information from said means for generating~~ N source information.

Claim 16 (Previously Presented). The apparatus for processing an audio signal according to claim 15, wherein said localizing in

sound image in said signal processing means is a virtual sound image localization for obtaining two-channel reproduced signals supplied to a pair of acoustic transducers to localize a sound image at an arbitrary position around a listener.

Claim 17 (Currently Amended). An apparatus for processing an audio signal comprising:

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means for receiving a plurality of M sound source signals, each of said sound source signals having source information including at least one of position information, movement information, and localization information;

means for generating synthesized sound source signals by synthesizing N sound source signals, from a plurality of (M) said M sound source signals, where N is smaller than M, based on said source information of each of said M sound source signals;

means for synthesizing said M source information to produce N source information corresponding to said N synthesized sound source signals based on said source information of each of said M sound source signals;

signal processing means for providing a plurality of sets of reproduced audio signals by localizing said synthesized N sound source signals in virtual sound image based on ~~a plurality of sets of previously determined localization positions~~ said N source

information;

memory means for storing a said plurality of sets of reproduced audio signals obtained by said signal processing means; and

reproducing means for reading and reproducing one of said plurality of sets of reproduced audio signal from said memory means in response to ~~a reproducing localization position~~ said N source information of said synthesized N sound source signals.

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Claim 18 (Previously Presented). The apparatus for processing an audio signal according to claim 17, wherein said localizing in said signal processing means is a virtual sound image localization for obtaining two-channel reproduced signals supplied to a pair of acoustic transducers to localize a sound image at an arbitrary position around a listener.

Claims 19-23 (Canceled).
